

REMARKS/ARGUMENTS

These remarks are filed in response to the Examiner's Report of September 10, 2007, a response to which is due by December 10, 2007. Accordingly, the Applicant respectfully submits that no extension of time fees fall due in connection with the filing of this paper. If the Applicant is mistaken, the Commissioner is hereby authorized to deduct any necessary fees from our Deposit Account No. 13-2400.

Claims 1, 11, 12, 14, 15, and 17-20 have been amended. Claims 13 and 16 have been cancelled. New claim 21 has been added. Following entry of the amendments, 19 claims remain pending, meaning no excess claim fees fall due as a result of this amendment.

The Examiner has rejected to all claims 1 to 20, for obviousness having regard to U.S. Patent Application No. 2001/0043579 to Tourunen et al. In view of the 3GPP Technical Specification ("3GPP"). Specifically, the Examiner states Tourunen et al. teaches "determining if the at least one data packet meets a predetermined criteria and if so sending out a request to the other interface devices of the group for any data packets of the sequence received by the other interface devices and receiving at the one interface device any data packets sent by the other interface devices in response to the request" ([0027], lines 3-11, and Fig. 4, #414, #418). The Examiner also indicates that the same mechanism for forwarding of untransmitted downlink data packets also applies to forwarding of uplink data packets.

With regards to claims 3, 13 and 14, the Examiner refers to 3GPP at p.42, Fig. 19, M bit: 0 for last segment of N-PDU. The Examiner states that 3GPP teaches that the at least one data packet is the final data packet, and it would be obvious to modify Tourunen et al. to include the final data packet determination to achieve predictable results of reliable data transmission.

Claim 11 and its dependent claims have been amended to claim an "interface device",

rather than an entire gateway. New claim 21 is directed to a communications system including a gateway network and an interface device. Claim 1 has been amended to include the feature of "determining if the at least one data packet meets a predetermined criteria based on the location of the at least one data packet in the sequence of data packets". Similar amendment was made to claim 11. The support for this amendment is found in claim 13 and the description at paragraphs 28 and 37 of the specification, as originally filed. As explained in the specification, at paragraph 28, a data packet 150 includes packet information 156. Packet information 156 includes information identifying where in the sequence of data packets of the datagram the data packet 150 is located. At paragraph 37, it is further explained that:

Assigning the wireless transport interface that receives the last data packet as the owner of the datagram is convenient as it is relatively simple determination to make and the wireless transport interface receiving the last data packet will generally be the most likely wireless transport interface in the group to have the capacity to handle reassembly of the message. However, in some example embodiments, it is possible to use other criteria to assign ownership - for example the criteria for determining ownership could be the wireless transport interface receiving the penultimate data packet, or a threshold number of data packets, among other things.

It is submitted that amended claim 1 would be considered unobvious in view of Tourunen et al. in view of the 3GPP. Tourunen et al. teaches a handover from the UMTS to the GPRS. Specifically, Tourunen et al. teaches that "such a handover takes place when the mobile station MS moves during a packet data transmission from the UMTS cell to the GSM/GPRS cell, which uses a different serving node SGSN." See paragraph 26. Thus, the triggering event for the handover is when the mobile station MS moves from one cell to an adjacent cell.

However, in amended claim 1, the triggering event is based on the location of the at least one data packet in the sequence of data packets. In response to the triggering event, the (for example) final interface device "broadcasts" an ownership claim to the other interface devices to request the data. Such a configuration is convenient when multiple wireless transport interfaces provide coverage to a geographic area for

purposes of redundancy, scalability and load balancing. Such a configuration can also assist when roaming among a group of transport interfaces serving a defined coverage area occurs as a datagram distributed among more than one transport interface within the group can be rebuilt without requiring the mobile device to resend the entire datagram to a single transport interface. Thus, a wireless network can be broken up into coverage areas in which roaming is common, and each coverage area given an associated group of transport interfaces that can communicate among themselves to reassemble messages originating from within the coverage area. See paragraph 36 of the specification.

In the Tourunen et al. reference, if a mobile station moves through multiple interfaces, a handoff would occur to move the data from one interface to the next. Each subsequent move would require an additional handoff, which causes unnecessary steps to be made. Claim 1 would only requires the (for example) final interface device to request the data from the other interface devices.

Furthermore, the Applicant disagrees with the Examiner as to how the downlink of data packets in Tourunen et al. could be simply applied to the uplink of data packets as claimed in the present application. The Tourunen et al. reference is concerned with reliable data transmission (paragraph 9), for whatever reason, such as for example continual broadcast of the transmission, etc. To achieve this, as explained above, Tourunen et al. requires the triggering event for the handover to be when the mobile station MS moves from one cell to an adjacent cell. This facilitates the continual downlink of data packets to the mobile station MS. On the other hand, the system described in Tourunen et al. cannot be merely be reversed in order to arrive at the uplink features of the claimed invention. As explained, the present invention can have the mobile device move in and out of coverage zones, and between multiple zones, depending on the uplink as provided by the mobile device. The message is then assembled once only, at (for example) the interface which receives the end of the message.

With respect to 3GPP, 3GPP discloses that the last data segment can be indicated (under the M bit). However, from the above it has been explained that Tourunen et al. automatically performs the handoff upon movement from one cell to an adjacent cell. There is no suggestion whatsoever in either 3GPP or Tourunen et al. of using predetermined criteria based on the location of the at least one data packet in the sequence of data packets. 3GPP also does not remedy any of the other above-noted deficiencies of Tourunen et al.

With respect to remaining claims 2-12, 14, 15, and 17-21, for similar reasons, it is submitted that these claims would also be considered unobvious in view of Tourunen et al. in view of the 3GPP.

Favourable reconsideration and allowance of this application are respectfully requested. Should the Examiner believe however that additional amendments to the claims may be required to secure allowance of this application; he is invited to telephone the undersigned at the below-noted number to facilitate further prosecution of this application.

Respectfully Submitted,

ZOU, Bo et al

By: 

Fraser D. Rowand, Regn. No. 53870

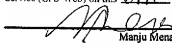
Place: Toronto, Ontario, Canada

Date: December 6, 2007

Tele No.: 416-868-1482

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this document is being transmitted electronically
Via the United States Patent and Trademark Office's Electronic Filing
Service (EFS-Web) on this 6th day of December 2007


Manju Menz